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The Veterinary Surgeon in the Meat Inspection Service*

W. J. BRENNAN DEVINE, M.C., F.R.C.V.S., D.V.S.M. (VICT.)
CHIEF VETERINARY OFFICER, BIRMINGHAM

As disease may be transmitted to man by meat and meat products, meat inspection forms an important branch of the general public health service. It is essential for the protection of the consumer that an adequate and proper meat inspection service should be established and maintained throughout the country. Under the present conditions there is no uniformity of meat inspection in this country, indeed in many centres meat inspection is practically absent. It is a significant fact that in certain large abattoirs where there is a veterinary meat inspection staff in charge, there is a constant percentage of meat which is found to be unfit and is condemned, whereas in other centres where there is no proper meat inspection staff, the percentage condemned is practically nil.

In addition to preventing the harmful effects of diseased meat on the consumer, veterinary meat inspectors by carrying out *ante-mortem* inspection at the abattoir lairs, can detect symptoms of animal plagues, such as foot-and-mouth disease, swine fever, etc., thus preventing their spread and rendering valuable aid in the eradication of the scheduled diseases.

In this country large amounts are expended annually in the upkeep of hospitals and sanatoria for the treatment of affected humans who are suffering from diseases of animal origin. If such diseases were eradicated the necessity of the upkeep of such costly institutions would be eliminated.

Meat inspection covers a wider field than appears at first sight. In order to carry it out properly a fundamental training in veterinary anatomy, physiology, pathology and bacteriology is really necessary. In addition, an inspector requires to have a working knowledge of the orders made under the Diseases of Animals Acts as well as those of the Public Health Acts which relate to slaughtering, slaughterhouses and meat.

The authorities in this country have lagged behind those of other civilised countries in meat inspection. The veterinary surgeon for many years has been established as the expert on meat inspection in all countries who send their meat and meat products to England. Other countries insist that meat which is sent from this country should be examined and certified by a veterinary inspector, yet for our home supply we do not insist on such conditions.

Previous to the introduction of the Food and Drugs Act of 1938, no recognition was given to the veterinary inspector in any of our legal enactments, but in the latest Act, that of 1938, provision is made that any member of the Royal College of Veterinary Surgeons employed by a local authority for the inspection of meat "shall be deemed to be an authorised officer for the purpose of examination and seizure of meat under the provisions of this Act relating to unsound food." In the Public Health (Scotland) Act of 1897, the veterinary surgeon is recognised as the meat inspector.

Lack of uniformity in meat inspection in this country is due, to a great extent, to the diverse interpretation of the statutory obligations relating to meat inspection. If meat inspectors and their appointments were controlled by a central Government authority and not by the local authorities, a uniform standard for the whole country could be established and maintained. An attempt was made by the Ministry of Health in 1922, when they introduced Memo. 62/Foods, which was a guide laid down for meat inspectors to establish uniformity, but after twenty years it is seen that there is still as great a lack of uniformity as before. It is unfortunate that some local authorities completely neglect meat inspection in their areas, and when meat is sent from such areas to others where meat inspection is established, much of the foodstuff has to be condemned owing to disease being discovered in the carcases.

Freibank System.—The loss of any meat at the present time, whether due to disease or other cause, is a serious one, but if we admit that diseased meat is harmful for man, shortage of supplies does not justify lowering the standard of meat inspection. In certain sections there is a tendency to encourage the lowering of the standard during the present crisis, in order to save a certain amount of diseased meat which would normally be condemned. Personally I am of the opinion that the standard should be maintained, but at the same time I admit that some of the meat which is within the category laid down for condemnation, could be sterilised and rendered safe for human food by the Freibank system. Under this system, pork and beef affected with tuberculosis may be trimmed and sterilised, and sold to the public at a reduced price. In some continental abattoirs this Freibank system is regularly worked, diseased portions of carcases are removed and the remainder sterilised by means of steam. This is carried out under Government supervision (a very necessary precaution, as recently we have had reports from various parts of the country of large numbers of people being affected with trichinosis due to eating uncooked or partially cooked sausages).

If meat inspection in this country is to be controlled and developed along modern scientific lines, it will be necessary to erect modern abattoirs at large centres where there is assured a sufficient number of animals to justify the appointment of whole-time meat inspection staff, and to eliminate all slaughterhouses in the areas where the local authorities do not carry out their responsibilities with respect to meat inspection.

I maintain that it is the duty of the Government to establish a uniform standard of inspection: uniformity would be welcomed by the meat trade. One cannot expect to have uniformity so long as the duties of meat inspection are left to the local authorities. There are bound to be diverse views on the interpretation of orders, and past customs have their effect in influencing the judgment of inspectors in various areas. If slaughtering were centralised it would secure one hundred per cent. utilisation of all materials derived from animals, not only the edible products but all by-products, such as blood, intestines, bones, hoofs, horns, etc. In isolated slaughterhouses in country districts there is an unnecessary waste of all this by-product material.

The advantages of centralised slaughtering may be summed up as follows:—

1. It ensures meat exposed for sale for human food being prepared under hygienic conditions.
2. It ensures all non-edible offal and diseased and unfit meat being treated in a by-product plant, thus securing the full residual value.
3. It provides for the greater certainty of the proper working of the Diseases of Animals Acts and other legal conditions.
4. It is more economic than having many small slaughterhouses utilised part-time, as each centre would be supplied with sufficient numbers of animals to keep the staff employed full time 5½ days per week.
5. It is the most certain way to establish uniformity of inspection.
6. It would ensure for pharmaceutical purposes a certain supply of glands such as foetal calves' livers, pituitary body, suprarenals, ovaries, testicles, pancreas, thyroids.
7. It would afford opportunities for research into the science of meat production and the special attributes of particular breeds of livestock; it would also allow the compilation of accurate observations on the extent, distribution and effects of disease, which are essential to the efficient planning of national programmes for their control or eradication.

DISCUSSION

Mr. H. E. BYWATER, President of the Society, opened the discussion in the following terms: I must first thank Major DeVine for making the journey here this afternoon to give us the benefit of his views upon meat inspection in this country. Major DeVine has been engaged for a number of years in meat inspection in one of the busiest centres in England and his conclusions merit our most careful consideration.

Where veterinary surgeons have charge of meat inspection a greater amount of meat is usually condemned than in those localities under non-veterinary control. In some places, however, where the inspectors have not the qualifications or experience necessary for efficient inspection, and specially where they are engaged upon a variety of duties of which food inspection forms but a minor part, the standards adopted vary greatly. Whilst in some localities the standard is very low, in others it is unnecessarily high—the inspector condemning anything he is not certain about, usually without reference to others more capable in the work. I am satisfied that a considerable loss to the community has resulted in consequence of unwarrantably high standards—especially was this the case before the present war. Examples of the low standards adopted in country districts, or rather, one might say, lack of any standard at all, were constantly in evidence at Smithfield and other large receiving places prior to the war where meat totally unfit for human food was not infrequently found to have been passed by rural sanitary inspectors. In fairness one must also state that veterinary practitioners with no practical

* Résumé of an address to the meeting of the Central Veterinary Society held at the Conway Hall, Red Lion Square, W.C.1, on April 2nd, 1942.

experience of meat inspection and slaughtering to keep them acquainted with the subject after their college days, were likewise guilty of recommending owners to send meat for sale which was unfit. Fortunately such occurrences were rare, but, rare though they were, they reacted unfavourably upon our professional ability.

I have some figures to bear out Major DeVine's contention that veterinary meat inspection is usually of a higher standard than non-veterinary inspection. I have returns for West Ham from 1926-1932 and also returns from a small but important provincial town in England where meat inspection is not under veterinary control, but where the inspectorate is by no means considered unprogressive. In West Ham 59·5 per cent. of all cows slaughtered had some macroscopical evidence of tuberculosis, sometimes slight—the provincial returns gave the percentage of similar cases as 21·62 per cent. The percentages for other bovines were:—

Bulls:	West Ham	34	per cent.	Provincial town,	none given.
Bullocks	,,	7·3	,,	,,	4·35 per cent.
Heifers	,,	11·8	,,	,,	7·94 ,,

Variations in the class of animals slaughtered may account for some differences and the numbers slaughtered in West Ham were considerably greater than in the provincial town; nevertheless I believe this represents a fair picture of the efficiency of inspection in the two centres given.

Veterinary surgeons are, without any logical doubt, the only persons trained to direct efficient and scientific inspection of meat products and should form a necessary part of any public health service, but training alone is not enough: some years of practical experience of inspection in the slaughterhouse is absolutely necessary before one can assume with confidence the efficient direction of such a service.

The great tragedy of the century with regard to veterinary meat inspection was witnessed as a result of the Agriculture Act, which might have been used as an instrument to establish meat inspection in this country on a satisfactory basis. During the years before this Act graced the Statute Book of our realm veterinary municipal officers were gradually and quietly establishing their claim to direct meat inspection. The passing of the Agriculture Act resulted in many veterinarians in municipal employ being replaced in the meat inspection service by laymen.

The urgent need is for a national service to replace the local services. This has been done in the case of veterinary work under the Diseases of Animals Acts and the Milk Acts and Orders. The obvious body to control meat inspection is the Animal Health Division of the Ministry of Agriculture. Centralisation of slaughtering is the best measure to ensure efficient and standardised meat processing and inspection—indeed it is necessary both for economic and public health reasons. If a total effort is really needed to win this war surely the reform of the meat inspection services is both appropriate and convenient at the present time.

I agree that Memo. 62/Foods needs revision in the light of the increased knowledge and experience now available. The Memo. has already been modified in respect of caseous lymphadenitis. Was the modification the result of a fuller understanding of the pathology of this disease or did it result from the agitation made by vested interests?

Major DeVine says it is the duty of an inspector to follow the official instructions, but Memo. 62/Foods, unlike the Scottish code, is not an instruction but merely a recommendation for the guidance of meat inspectors. I believe it is the duty, under such circumstances, of the scientifically trained inspector to act as his intelligence guides him. Personally I would only pass, for another being's food, such meat as I would myself eat or allow my family to consume.

I strongly oppose any such system as the Freibank system of "sterilising" diseased meat and then selling it for human food. Food supplies being limited, in view of the danger of deterioration of the standard of general nutrition during war-time, we should strive to ensure that meat, which is the major source of our first-class aminoacids, should be of the best possible quality—hence the quality and hygienic standard of the reduced amount of meat now consumed should not be lowered.

If the Ministry of Health have reason to believe that Memo. 62/Foods requires adjustment, it should give the necessary instructions. The action of the Ministry of Food with regard to meat inspection generally is not elevating: one is inclined to think that the object of the Ministry of Food is to lower rather than increase the general standard of meat inspection. The outlook of the Ministry of Food is that of commerce. Traders who substitute horse flesh, which is of high nutritional value and markedly free from disease, for beef which is often of a lower standard, are prosecuted. Are aesthetic considerations permitted to take precedence over nutritional and hygienic considerations, or is there some other factor which has a bearing on this matter? Surely it would be better to treat horse flesh in the same manner as other meat and to control its slaughter and distribution. I would rather eat meat puddings made of horse flesh than meat which had been subjected to the Freibank system. Would not the nation be better served by using horse flesh for manufacturing purposes in place of some of the beef released for manufacture by the Ministry of Food?

I have intimated that I consider meat inspection should be a national, not a local, responsibility, and I agree with the need and advantages of centralised slaughtering so ably put forward by Major DeVine, but if the veterinary profession desires to be entrusted with the direction of the meat inspection service it must show more interest in the subject than heretofore. Save for a very small nucleus of the profession, little or no interest has been displayed—the gathering here this afternoon is pleasing evidence of an awakening in our ranks. Reference to *The Veterinary Record* of forty years or so ago will give plain evidence why we have progressed so little in this work. Advertisements by local authorities inviting veterinary surgeons to apply for positions as meat inspectors were scornfully commented upon in the correspondence columns. The congresses of the Royal Sanitary Institute have been very poorly attended by our profession. The Veterinary Section, which dealt mainly with milk and meat inspection, was always crowded, but contained amongst its audience lamentably few veterinarians. A very few of the profession, however, were almost invariably present, and amongst such I would like to mention stalwarts like the late Mr. F. Gooch, of Stamford, who was as regular an attendant at such meetings as any practitioner I know. If each veterinary surgeon would display but a tithe of the interest in this subject which he evinced we should not be here this afternoon discussing the shortcomings of the present system of meat inspection in this country.

Dr. J. T. Edwards congratulated Major DeVine on the lucidity and pointedness of his address. He had shown a neglect on the part of the profession to take up this subject seriously when opportunities had been presented to them. Why was it that in this country, so far as the veterinary profession was concerned, the standard of meat inspection fell so much behind that prevailing, should they say, in Germany, and far behind that prevailing in the U.S.A.? Major DeVine had indicated to them that the present excellence of the system adopted by the Federal Bureau of America dated from the publication of Sinclair's famous novel dealing with conditions in the Chicago stockyards. In Germany the excellence of the meat inspection conditions arose from the enterprise and erudition of a few men; in particular, the great Ostertag, whose death they mourned a few years ago. He it was who collected evidence, as a young man, in the Berlin slaughterhouses, and placed on record for the guidance of veterinary surgeons in his country the system which should be followed in meat inspection. Ostertag might rightly be regarded as the father of modern meat inspection. We had had a similar man in this country—Professor Walley—who started the teaching of meat inspection in the Veterinary College in Edinburgh, and who, as a result of his teaching, turned out a famous school of men (such as Trotter, King, Malcolm, Parker) who were stalwarts in directing meat inspection in this country. Major DeVine came into the work at a critical time, and it was greatly to his honour that, through his industry and drive, he had been able to maintain the traditions handed down to him by his distinguished mentor, John Malcolm: few others of his generation had done so. In 1907, when he (the speaker) joined the Veterinary College in London, meat inspection seemed as if it would become a great field for the veterinary surgeon. It had not done so: indeed it had flagged and there were certain historical reasons for that. Only six years before 1907 there had been held an historic congress in London, the British Congress on Tuberculosis, visited by Professor Koch, at which he made his famous pronouncement that bovine tuberculosis was fundamentally different from human tuberculosis and inferring that all the money spent on measures to protect the human population from infection by tuberculosis of bovine origin had, very largely, been wasted. Only a few months before that, at the N.V.M.A. meeting at Plymouth, Sir John M'Fadyean had pointed out to the profession that they were exaggerating the importance of tuberculosis in the human subject as derived from the consumption of tuberculous meat. At the London congress referred to, however, Sir John, in a masterly review of the position, showed clearly that Koch had gone altogether too far, and that tuberculosis of bovine origin did, in fact, represent a real menace to the human population through the consumption of infected milk, also of meat to some degree. The result was that a Royal Commission was established and it was upon the reports of that Commission that their present views upon the importance of tuberculosis in animals to the human subject largely rested. There had been in the past, however, a danger from exaggerating the importance of meat inspection so far as the risks of tuberculosis to the human subject were concerned. There followed a period of neglect and then of apathy towards the subject in this country, and yet we knew now that the subject ought to be regarded as a most important one. Those of them who were pathologists knew the danger in the human subject from tuberculous meat must be viewed, especially when the meat was cooked, as a very small one indeed: the importance of bacteriologically infected milk was far greater than that from tuberculous meat.

The subject had developed in importance in a different sense altogether. They knew now, for example, that the danger to the human subject of consuming putrid meat was not very large: they knew that in the case of some of the wild carnivora it was very important that the muscle meat should be allowed to undergo some degree of putrefactive change so that the meat should become ammoniacal and so not deplete the "alkali reserve" of the body. But there was one aspect of the bacteriological contamination of meat that was of far greater importance than they thought at one time: the existence of that contamination could not be detected readily by ordinary macroscopic examination, but could only be revealed by bacteriological examination. The Germans, in recent years, had carried out very extensive work on this subject and found out that the number of bovine carcases infected with Salmonella organisms dangerous to man was far higher than they anticipated. In all up-to-date slaughterhouses on the Continent the meat inspector had to be also a bacteriologist, in order that the existence of Salmonella infection could be detected. The importance of Salmonella infection as the main cause of so-called "meat poisoning" was only properly realised after the publication of Savage and White's monograph a few years after the last war. He thought Major DeVine must still admit that the contamination, even of healthy meat, which took place with these organisms, such as in pork pies, from infected human carriers, was a danger that ranked greater than most of the conditions which could be detected in the carcase with the naked eye. Salmonella infection was often "agonal," following upon depression of the animal's body resistance by some other disease—hence the importance of *ante-mortem* inspection.

Thus there had been during the growth of this subject a neglect on the part of the profession to accommodate itself to new developments in pathology, which tended to show that there were actual dangers of a certain order to the human subject from the consumption of meat and these dangers needed highly-skilled training for their detection. He need scarcely point out the dangers such as existed in trichinosis which, as they knew from the evidence of the last two or three years only, were important in this country as elsewhere. Therefore, he would say that in this matter of meat inspection—which should, as M'Fadyean rightly said, be looked upon as something within the purview of the veterinary surgeon and as being nothing more than the *post-mortem* examination of animals for human consumption—they had been negligent in applying themselves assiduously to the application of measures to eliminate risks. Major DeVine had rightly stressed the potential rôle of the expert veterinarian in slaughterhouse organisation and control of the meat industry. A bugbear to the veterinarian had always been the wording of the Public Health Act, 1875, but it had to be remembered this Act was enacted before the rôle of the veterinarian in meat inspection was appreciated within the profession itself.

The Chairman had pointed out what a calamity befell the profession with the passage of the Agriculture Act, 1938, whereby the separate municipal services, such as at Liverpool and elsewhere, which had been built up by pioneers, were by a stroke of the official pen, annihilated. In their stead there had been no central service created for meat inspection and for that reason he thought that it should go out from that meeting that all of them were in agreement with the essayist in pressing strongly for central unified control in that enormous subject of meat inspection. Meat inspection, to be properly carried out in any rational present-day system, required all the training of the skilled veterinarian, calling to his aid all the resources of modern science.

Mr. W. A. Poot said that the impression was apt to be given that while we were backward in Great Britain everything was well in other countries as regards public health, but, as concerned the meat inspection service, the attention given to it in most countries was in reality limited. In Germany and the countries culturally associated with Germany, the habit of eating uncooked food was responsible for the greater degree of attention devoted to meat inspection. Even in the U.S.A. the meat inspection service had been regarded as inadequate, especially from the veterinary point of view. In the Latin countries the service was virtually non-existent.

Mr. J. S. Steward confirmed the essayist's view of the importance of *ante-mortem* inspection of animals. This work was naturally a veterinary surgeon's prerogative and was primarily important with animals slaughtered as casualties. The ordinary meat inspector appeared to be capable of passing, as fit for food, carcases suffering from anthrax and other diseases which, if seen alive by the veterinary inspector, would not be permitted to pass for human consumption. Quite often one had seen sanitary inspectors passing animals which were affected with haematogenous tuberculous lesions. He had

several times had tuberculous lesions in meat bought in shops and had seen tuberculous poultry offals in fishmongers. He suggested that the relaxation of restrictions on condemning pigs with tuberculosis was probably due to the discovery of the rather restricted spread of avian tuberculosis in swine.

The President of that Society did not like the Freibank system, but he (the speaker) thought it might be adopted in large municipalities, at all events for the duration of the war. The large amount of meat now passed by meat inspectors would be much safer if treated by heat. Another thing that should be improved was the treatment of contaminated knives and other utensils; he thought the instruction of the slaughtermen in surgical principles was very important.

In regard to the attendance at the Sanitary Congress by veterinary surgeons, he thought the veterinary surgeon had been discouraged by the attitude of many whom they had instructed or examined in meat sanitation. It was by these very people that they were being done out of their proper duties. He should imagine that the D.V.S.M. would become a defunct thing. That diploma was of some value, but the veterinary surgeon taking it was handicapped because it involved him in so much loss of time, if he subsequently entered the State Veterinary Service.

He would like to thank the essayist for his good work in Birmingham, which redounded to the credit of the profession, and for dealing with the subject in such an interesting manner. He hoped the veterinary profession would take a more prominent part in meat inspection.

At the request of the President, Capt. W. G. Wragg took part in the discussion. He said that he was not very well qualified to discuss meat inspection, but he could only say that the position in this country was "Gilbertian," in that while the Ministry of Health prescribed very comprehensive methods of inspection and guarantees for imported meat—which represented 50 per cent. of our meat supply—yet meat inspection in this country was not compulsory and was efficiently carried out in only a few cities and boroughs. He doubted whether the continental countries invariably maintained a high standard of efficiency under their State organisations, as it would be recalled that it was the fact that Belgium and Holland exported to this country, in 1926, carcases which showed well-marked lesions of foot-and-mouth disease which led to the embargo on continental meat under the Importation of Carcases Order. He agreed with the President (Mr. Bywater) that meat inspection should be under the direction of a central Government department and said that he was very surprised that the opportunity afforded by the Agriculture Act, 1937, had not been taken to include this service in the Animal Health Division of the Ministry of Agriculture and Fisheries. He thought that, apart from public health, this was essential in view of the records that many outbreaks of scheduled diseases, particularly foot-and-mouth disease and swine fever, were brought to light in slaughterhouses. The efficiency of the meat inspection services in the South American countries referred to by Major DeVine was due in large measure to the augmentation of their inspectorate staffs at the request of our Government to reduce if not eliminate the risks of introduction of foot-and-mouth disease here through the agency of chilled and frozen meat.

Dr. W. R. Wooldridge (President, N.V.M.A.) said that he thought the essayist and the President had hit upon two most important points: first of all they said that the profession itself had not really put its back into the question of meat inspection and, secondly, they had pointed out that we needed much more interest on the part of the general public in the service this profession could render to the nation. It was no use people getting up and telling meetings of veterinary surgeons what they could do, if they did not go away and endeavour to get a co-ordinated policy on behalf of the profession as a whole. He thought they should make no headway until a co-ordinated policy was pursued over a period of years, and, in his view, the exercise of unlimited patience if any real progress were to be made. One could cite the change brought about in 1938 when, for the first time, the veterinary surgeon, as such, was accepted as an authorised officer for meat inspection purposes in England and Wales. Before that Act was passed, the "National" tried to get an amendment embodied in it. They sent a deputation to the Ministry of Health, but they could make no headway; in the end they tried certain parliamentary procedures—informal procedures—but still no headway was made, and then one of their members went along to the meeting in the "House" when the Bill was being considered in committee. That member waited impatiently until Article 107 came before the committee—that was the vital part of the Bill. When that Article came up, the Chairman was just brushing it aside as of little consequence and this individual had to stand up and interrupt the proceedings, and force the committee to listen to the case for the veterinary profession. A long discussion ensued between the member concerned and the Ministry of Health officer who had received the "National" deputation. As the result of that intervention the Members of both Houses, who formed the committee, were unanimous in their view that the veterinary surgeon should be mentioned in the Bill and he was included. But that amendment was secured at the last ditch and it should not be like that: M.P.s should know and appreciate the views of the profession earlier. There were, however, certain inter-departmental difficulties. There were important differences between Government departments and these were based on good reasons, and he himself thought that there was an element of justification for the refusal to include meat inspection in the reorganisation at the time of the passing of the Agriculture Act. The Animal Diseases Department of the Ministry of Agriculture had, before that date, only been concerned with notifiable diseases: they had no knowledge of animal health as a whole. It was a big change over, and he thought they should pay tribute to it—despite the fact that some thought it did not go far enough—but one could not suddenly convert a service with very restricted functions to one involving wide functions and get all to appreciate that it was in a position to carry out those wider functions thoroughly. At that time, the Ministry of Agriculture had considered the taking over of the meat inspection service, but the Ministry of Health would not agree, because it felt that the sphere of the Ministry of Agriculture was one entirely concerned with the producer, whereas the Ministry of Health was concerned with the consumer. He thought that there was now a possibility that the change might be brought about within a reasonable period, but he still felt that they had got to prepare their case more thoroughly, to educate the public and Members of Parliament, and no doubt they would have to persuade some civil servants as to the value and correctness of their views.

When they came to look at the policy of the professional associations, what should be their policy on meat inspection? He did not think it should be an isolated policy on meat inspection alone: he thought meat inspection had little justification as a State service unless it was bound up with an animal health service and a nutritional policy for the people. They must have a wide outlook: a meat inspection service must be positive and not just negative so far as a procedure was concerned. They would like to see the meat inspection service advising the producer on his methods of production, as well as safeguarding the quality of his meat. He was hopeful that some such policy as that would be adopted by the profession and as a corollary of that it followed that the profession was, beyond dispute, the only body of persons who could be responsible for the State service for the control of the quality of meat.

Dr. McCunn expressed appreciation of the opportunity provided to discuss the subject and of Major DeVine as a recognised authority. He thought, however, they were flogging the wrong horse. Ever since he could remember, he had had dinned into his ears "diseases of animals communicable to man." That aspect was, to his mind, grossly over-rated in importance. We might have the worst system of meat inspection in the world, but the total amount of tuberculosis transmitted by meat must be very small. Similarly with milk. We drank one-third of a pint per head per day, the Americans a lot more and the Japanese a lot less, but tuberculosis was most rampant in Japan. That illustrated that the amount of disease, particularly tuberculosis, conveyed from animals to man was small in relation to the total extent of human infection, which was influenced by many factors other than foods. He thought Mr. Steward was right in stressing the aesthetic attitude and the hygienic side of meat inspection. The idea of dirty or putrid meat was repugnant, although it was not putrid meat which caused outbreaks of food poisoning, but that which had the appearance of being sound.

He, too, was very sorry, and indeed shocked, that when the Agriculture Act was passed the high standard achieved by some local authorities was swept away. He agreed with Capt. Wragg that the position in other countries could not be as good as it appeared to be on paper, instancing trichinosis originating from foreign meat.

Major DeVine had omitted reference to the important questions of fish and poultry. Also the case would be strengthened if the Army Veterinary Service undertook food inspection duties as in the American Army. He believed the point could be gained by reference to the Quartermaster General's department.

Mr. J. Francis said that in the U.S.A. it was only meat which was transferred from one State to another which was efficiently inspected. Meat produced and eaten in the same State was often inadequately inspected. This was analogous to the position in Great Britain: he believed that the inspection of imported meat was very efficient. With centralised abattoirs and an efficient meat inspection service much valuable pathological material and statistical data would be obtained.

When discussing the incidence of tuberculosis in the human subject, in relation to meat inspection, it was of course important to differentiate between the human and bovine forms.

It seemed to be the general opinion of the meeting that there should be more publicity. Good publicity was really education, and in his view all successful measures of disease control had been carefully planned and then publicised.

Mr. Steward, speaking in reference to the aesthetic aspect of inspection in its relation to fish, said it was no use being fussy if you could not do anything about it, as in the matter of eating fish which was very often badly affected by harmless nematode parasites situated between the musculature, and the immense numbers of coccidia in the roe. The pathogenic immature stage of *Dibothriocephalus latus* in fresh-water fish was of course another matter altogether. Most of the troubles they were concerned with in meat inspection, however, they could do something about, and thus it behoved them to deal with them vigorously.

The Reply

Replying to the points in the discussion, Mr. DeVine said that the question was sometimes asked: Is meat inspection worth while? If they read Professor Griffiths's report on "Tuberculosis of Animal Origin in England" they would find that a high percentage of the people in the sanatoria were affected with tuberculosis of bovine origin. If tuberculosis in cattle were wiped out in this country it would naturally reduce the number of people affected with tuberculosis of bovine origin who are found in the sanatoria. The more tuberculous carcases condemned, the greater the urge of the animal owner to clear his herd.

Mr. DeVine said he was pleased to hear the remarks of the President, Mr. Bywater, of West Ham. The Food and Drugs Act of 1938 replaced the Public Health Act of 1875 and others, but it was only by the "skin of his teeth" that the veterinary surgeon was mentioned in that Act. There was no mention of the veterinary surgeon in the Slaughter of Animals Act. Unless the veterinary profession claimed their right to carry out meat inspection, Acts, Orders and Regulations would be passed which would ignore the veterinary surgeon's claims.

He was very interested to hear Dr. Edwards' historical résumé on the origin and development of meat inspection in this country. Professor Walley was the first man—he was followed by Sir Stewart Stockman—who brought meat inspection before the public. There were other stalwarts, like Trotter, of Glasgow, and King, of Manchester, all of them pioneers who really proved by their work that the veterinary surgeon was the ideal man to put into this class of service.

Mr. Pool had stated that the meat inspection in other countries was not as good as it was made out to be: the speaker did not say it was ideal, but he did say that meat inspection in the United States was in the hands of and directed by the veterinary profession, and it was much better than it was in England. He had visited many continental abattoirs, in practically all of the European countries, and so far as he found it, the standard of meat innspection was far superior to what we had at home.

It was a great pity the Ministry of Agriculture did not take over the meat inspection service, because such a course would be of the greatest help to them in the eradication of scheduled diseases and, undoubtedly, if the Ministry staff were in charge of meat inspection, we would then have adequate scientific meat inspection throughout the whole country.

Following the essayist's reply, the following resolution was passed for forwarding to the National Veterinary Medical Association:—

"That the Central Veterinary Society strongly urges that a properly constituted system for the inspection of animal food products should be an integral part of a centrally controlled veterinary service and that such inspection should be directed by veterinary surgeons."

Australia has 123,000,000 sheep at pasture, about 3,000,000 more than last year. This record number, due to slaughter restrictions because of the limitation of meat exports, produced a record wool clip in the 1941-42 season.

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Expressing concern at the appreciable increase, since the war, in the percentage of unsatisfactory milk samples, Derbyshire Public Health Committee has asked magistrates to "co-operate" in protecting the public from the sale of poor quality milk.

CLINICAL COMMUNICATION

The Treatment of Mange by Tetraethylthiuram Monosulphide

S. JENNINGS, M.R.C.V.S.
Knowle, Warwicks

A number of letters and papers appeared in *The British Medical Journal* (1941) regarding human scabies and the respective merits of various therapeutic agents; particular mention might be made of separate papers by Buxton, Carter and McKenzie, dealing with the parasitological, clinical and therapeutic aspects of the disease and one by Mellanby discussed the apparently unsettled problem of contagion and transmission of the parasite. There seems little doubt that the incidence of human scabies in the civilian population has risen greatly during this war, as in the last. In spite of the reduction in the numbers of household animal population, one wonders whether this has been paralleled by any similar increase in dogs and cats and to what extent, if any, transmission from animal to man has taken part in this increase. We know that in the Great War, on all fronts, equine mange was a veritable nightmare to the veterinarian. For example, Hutyra and Marek (1938) mention that in March 1918, there were 56,592 equine cases in the German Army in the West, of which about 17,000 died, were slaughtered or were sent home.

I am prompted to write this clinical article merely because the control of the disease in man and animal is still a problem and it appears we await the discovery of the ideal scabicide. Any trials with new therapeutic methods or agents should be recorded if the results are at all promising.

It is only on reflection that one considers mange (or scabies) as a disease, with the pathogenesis of which we are by no means so fully acquainted as might seem to be the case. This is quite evident from the articles in the *B.M.J.*, although we are apt to think of mange in terms of a more or less severe parasitic eczematous inflammation, with resultant intense itching, to be treated by sulphur in some form or another. Apparently, we still lack knowledge of the complete life cycle of the parasite; for example, it appears from Buxton that the accepted view is that the male pairs with the female, but actual observations have not been made. Further, although it is recognised that *Sarcoptes scabei* attacks most mammals and the respective parasites are classified separately, Buxton states that anatomical differences between the parasites, which have some degree of host specificity, are non-existent.

In regard to treatment, the use of sulphur by the doctor and veterinarian is traditional,* but it is by no means the drug of choice. Its smell, its liability to cause sulphur dermatitis, and the soiling of clothes seem to make it a bad one for general human treatment. The same objections to its use in small animals arise even if only indirectly. A whole host of specific anti-mange remedies and treatments have been tried out in animals from time to time (see Hutyra and Marek), including various arsenicals, mercurials, tobacco concoctions, derris, rotenone and tar preparations (and fumigation by sulphur dioxide in Army horses in the last war), but none of them have possessed all the requisite qualities of high efficiency, low toxicity and ease of application. More recently certain German preparations dimethylianthrene ("mitigal" and "odylen") have enjoyed a popular vogue and have been highly commended. In these papers in the *B.M.J.*, two new methods of treatment are described which might well be tried out in animal cases. The first is the use of the old favourite sulphur, but incorporated in a bland soap and applied to the body in the form of a lather which leaves a thin film of sulphur as the lather dries. The second is the use of benzyl benzoate in the form of a lotion or cream. Both seem to have given good results in the hands of medical dermatologists.

Treatment by Tetraethylthiuram monosulphide†

The use of this substance for treatment of mange originated in the U.S.A., this information being brought to my notice by the Medical Research Laboratories, Imperial Chemical (Pharmaceuticals), Limited, Manchester.

After preliminary work, supplies of this drug were made available to me by the above laboratories in the form of an emulsion (varying from 25-40 per cent.) which was readily miscible with water. Prior to my own clinical trials, information was received from Dr. J. R. M. Innes, of this laboratory, that the material in about 2 per cent. strength was non-irritant to the skin of small animals (dogs, cats, rabbits, etc.). In addition it appeared that several outbreaks of severe mange in the laboratory stock of golden hamsters and rabbits had been successfully treated by the application of a 1/20 water dilution of a 25 per cent. emulsion of this product. (Dr. Innes informs me that the mange in hamsters and rabbits was caused by *Notoedres* and is quite common; while the ear mange of rabbits is apparently readily amenable to simple local cleansing and treatment, the disease in the hamster has a great tendency to spread, is much more resistant and more like the disease seen in the dog).

Twenty-one cases of mange in dogs, one in a horse and eight in cattle have been treated with this substance. It was not possible to demonstrate the parasite in every case, but only those cases have been recorded in which the parasite was demonstrated or in which the clinical symptoms were typical.

A summary of the case histories is given below:—

Sarcoptic Mange

Case 1.—Red Cocker Spaniel, two years. Extensive hairless patches on hocks, chest and axillae, ribs and ears. Skin thickened and continual scratching.

Treatment.—1/12 aqueous solution of 25 per cent. emulsion sponged on to all affected parts; repeated five times with about 3-4 days' interval between each treatment. This animal was completely cured with the hair growing fast in 15 days. No skin irritation.

Case 2.—Pekingese. This animal had been in contact with Case 1; severe skin irritation with hairless patches on hocks, ears, belly and chest. This animal was treated in the same ways and on the same dates, and was discharged with the spaniel as cured.

Case 3.—Spaniel. Badly affected with hairless patches all over the body; skin of belly badly inflamed and pustular. Treated with 1/12 watery dilution of 25 per cent. emulsion nine times (daily for 3 days and then with 2-3 days' interval between each treatment). The solution was rubbed in with the fingers. Dog discharged and cured about one month after beginning of treatment.

Case 4.—Spaniel Blue Roan. Parasites demonstrated microscopically by flotation method. Extensive hairless patches all over body. Animal dejected and emaciated. Skin thickened on ears and face.

Treatment.—A single dressing was applied all over the body diluted as in Case 1. This animal was discharged in three weeks completely cured except for hairless patches around the eyes. When seen six months later the eyes were normal again and this animal had a beautiful coat.

Case 5.—Samoyed. Three years. Hairless patches on belly, chest, legs, ears and tail. One dressing applied and discharged in two weeks. Some weeks later this animal was seen with the hair grown again perfectly.

Case 6.—Spaniel. Springer. Two years. Extensive skin affection. Parasites demonstrated. Two dressings applied with one week interval. Completely cured in three weeks.

Case 7.—Orange Roan Cocker Spaniel. Six months. Extensive patches all over body. One dressing only applied all over body. Complete cure in three weeks.

Case 8.—Alsatian. Nine months. Ears, belly, legs and tail affected. Parasites demonstrated. Two treatments with one week interval. Completely cured in three weeks.

Case 9.—Black Cocker Spaniel. Four years. Affected all over body. Two treatments given with interval of a week. Discharged in three weeks quite cured.

Case 10.—Dalmatian. Two years. Extensive lesions all over body. Parasites demonstrated. One dressing applied all over the body. Completely cured in two-and-a-half weeks. Hair completely grown again in six weeks.

Case 11.—Mongrel Terrier. Six months. Lesions on hind legs, ears and sides of face. One dressing applied. Skin normal in three weeks.

Case 12.—Cocker Blue Roan. Four years. Lesions on hind legs, ears and sides of chest. Parasites demonstrated. Two dressings applied with a week's interval. Discharged as cured in three weeks.

Case 13.—Greyhound. Two years. Extensive lesions all over body especially on hind legs. Parasites demonstrated. One dressing applied all over body. Animal completely cured in four weeks.

Demodectic Mange

(Parasites in the skin identified for diagnosis in each case)

Case 14.—Bull Terrier. Some skin irritation, also hairless patches on top of head, down the back and on the chest. Much skin corrugation in these regions. Prior to the date when treatment was given, the animal had been treated with novidol, sodium hyposulphite and acetic acid. During this time the animal got worse and there was more corrugation of the skin and more intense inflammation and itching. A 1/12 watery solution of the 25 per cent. emulsion of tetraethylthiuram monosulphide was applied by sponging the greater part of the body (not rubbed in) and repeated three times with 3-4 days' interval. The animal was discharged within one month as cured with all signs of active hair growth.

Case 15.—French Bulldog. Hairless patches on the head, ears, particularly in the facial folds and around the eyes. Treated with six applications on the affected parts. There seemed no response in this case and the animal seemed no better after many weeks.

Case 16.—Dachshund. Eighteen months. Corrugated folds on head and all four limbs. Two dressings were applied with an interval of a fortnight and the animal was normal in five weeks.

Case 17.—Shire type Mare. Aged. Symbiotic mange on hind legs. Severe irritation was evident from constant stamping of the legs. Hairless patches extending from fetlock region to thigh; mostly on the inner aspect. Skin dry and scaly with small blood clots. Two dressings within a week's interval of 1/12 watery dilution of 25 per cent. emulsion. Horse completely cured in three weeks.

Case 18.—In one herd eight dairy Shorthorns in mid-winter with typical "neck mange." Hairless patches occurred mostly on the neck, in several at the base of the tail. One dressing only of 1/20 watery dilution of 25 per cent. emulsion was applied to all affected parts. In one week there was decided improvement and in two weeks the skin appeared normal although the hair had not completely grown. When seen six weeks later and before spring had arrived the skin appeared quite normal.

* *B.M.J* (1941), page 135: "Among the remedies appropriated to the cure of scabies, sulphur has long been deemed both by the vulgar and the erudite to possess specific power."—Quoted from "Synopsis of Cutaneous Diseases," Bateman, 1813.

† Since this paper was written Gordon and Seaton (1942) have reported experimental work on the treatment of scabies; they showed that tetraethylthiuram monosulphide was more rapid and more lethal than either benzyl benzoate or dimethylianthrene.

Comment

Eighteen cases of sarcoptic mange in dogs (case histories of 13 given above), three cases of demodectic mange, one case of equine symbiotic mange and eight cases in cattle have now been treated with a watery dilution of an emulsion of tetraethylthiuram monosulphide. With the exception of one canine case all responded remarkably in a relatively short time. Fewer dressings were applied as confidence was gained in the substance. Some of these cases were in an advanced eczematous state and the trials can be regarded as efficient severe tests. It seems, therefore, that the value of this mixture as an anti-mange agent is high and in my opinion it is superior to any other I have tried. Some of the advantages of the preparation might be enumerated. (*a*) The preparation has no objectionable smell. (*b*) As it is a watery solution it dries quickly and does not leave the animal in a cold, clammy condition as do oily dressings. (*c*) The animal does not become in such a messy state, objectionable to have about the house, as is the case with household pets when other preparations are used. (*d*) It is non-toxic and does not appear to irritate the skin. (*e*) It gives a relatively rapid cure rate and appears to stimulate the growth of hair. (*f*) It appears that in the case of sarcoptic mange only one dressing is really necessary.

Although the number of cases is not great the results are sufficiently clear-cut to warrant the opinion that we have here an effective non-toxic anti-mange drug. Dr. J. R. M. Innes informs me that other highly favourable reports have been received by him and support these conclusions. Preliminary results in cases of human scabies have also apparently given good results.

References

Brit. Med. J. (1941.) 135, 215, 294, 415, 457, 616.

Buxton, Carter, McKenzie & Mellanby. (1941.) *B.M.J.*, Sept. 20th, pages 397, 401, 403, 405.

Gordon, R. M., and Seaton, D. R. (1942.) *Brit. Med. J.* 685.

Hutyra and Marek. (1938.) "Special Pathology on the Diseases of Domestic Animals," London.

Acknowledgment.—Thanks are due to the Medical Research Department, Imperial Chemical (Pharmaceuticals), Limited, Manchester, for supplies of the material.

NATIONAL MILK RECORDING SCHEME

Commenting on the above, a contributor to *The Farmer and Stockbreeder* writes: "I am glad that there are now hopes of a widely adopted milk recording scheme. There must be a great many cows in the country that are not pulling their weight for the national good and which would be much better out of the way. But the trouble is that they continue to eat into the food supplies unsuspected even by their owners. They can be detected only by a system of recording.

"To effect an efficient check on cows and to ensure the maximum benefit from rationed foodstuffs does not call for elaborate weekly recording as now practised. Monthly weighings would serve the purpose. I have been looking into the matter and cannot find another country which insists on weekly weighings. Scotland always boasts that its system is superiod to ours, and she is content with monthly figures.

"I believe that several countries, including New Zealand, run two schemes, an elaborate one for breeders and a simple one for commercial purposes only. Why cannot we do the same, if only for war-time? Perhaps this is where the agricultural experts who recently arrived from New Zealand could give us some valuable advice. If a practical scheme can be threshed out, the Ministry of Agriculture must certainly give financial assistance. It has not been to the Department's credit that it left existing societies to struggle along all through the war."

* * * * *

Weekly Wisdom

"*In our country* (*Russia*) *the whole population honours science . . . I would not be mistaken, I think, in saying that this is to the credit of the Government at the helm of my country . . . I raise my glass and drink to the only Government in the world which could bring this about, which values science so highly and supports it so fervently—to the Government of my country.*"—From a speech by the late Professor Pavlov in 1935. [The attitude of Pavlov towards the Soviet Government is particularly worthy of comment. Until 1930 he was openly and bitterly hostile to it, despite the encouragement it gave to his work; but by 1933 his attitude was modified, and by 1935 he was enthusiastically in favour of it, as shown by the above speech at Ryazan, his birthplace.]—*Brit. Med. J.*, 1942, March 21st, p. 388.

THE VETERINARY RECORD

August 15th, 1942

MEAT INSPECTION

GENERAL veterinary practice in this country has naturally tended to be largely an expression of individualism. Veterinary practitioners have been absorbed in the problems which are the constant companions of private practice and, in the majority of cases, have acquired a somewhat narrow outlook which, whilst under conditions obtaining during the latter part of the nineteenth century, was undoubtedly satisfactory to the individual practitioner's interest, had reacted unfavourably on the status of the profession in this country and on the wider utilisation of the veterinary surgeon in the interest of the community. This state of affairs, however, has been subjected of recent years to a process of evolution accompanied by a wider outlook, especially amongst the more progressive elements in our profession.

The passage of the Agriculture Act (1937), which resulted in a large number of practitioners participating in the State veterinary service, has aroused a keen interest in the centrally controlled service and there are signs that the profession is beginning seriously to consider the position which it holds and that to which it is entitled.

It is undoubtedly true that much of the meat produced in this country is not submitted to an efficient inspection—a position which is little short of disgraceful. Present legislation demands that meat imported into this country should be examined and certified in the exporting countries by a competent veterinary inspectorate and it is due to the requirements of our health authorities that exporting countries have established efficient veterinary meat inspection services: a fact which undoubtedly engenders criticism of the lack of uniformity in the system of meat inspection practised in this country.

The N.V.M.A. has always been alive to the necessity of putting meat inspection in this country on a proper basis and has repeatedly urged that meat inspection should be performed by, or under the direct supervision of, veterinary surgeons and this contention has received support in the columns of both *The British Medical Journal* and *The Lancet*.*

The advantages which accompany the centralisation of slaughtering of food animals should, we submit, be so obvious as to require no enumeration in our columns. Those of our members engaged in meat inspection have for many years been strong advocates of such a reform, yet a war was necessary to bring about official recognition of the principle of centralisation. This was not primarily in the interests of public health, but as a measure to control meat supplies and to facilitate the equitable distribution of meat consequent upon the exigencies of war.

The Government were content to allow considerations of public and animal health to be ignored, despite the fact that the centralisation of slaughtering presented an opportunity to effect reforms as much to be desired from economic as from other considerations.

This Association was alive to the opportunities thus presented to reform our meat inspection services and, shortly after the outbreak of war, made representations to the Ministries of Health, Agriculture and Food, which led to a few of our members, with meat inspection experience, being seconded for duties with the Ministry of Food, in order that they might act in an advisory capacity to local authority meat inspectors. They have, however, no real legal status and are not empowered to pass or condemn meat, which prerogative still remains in the hands of local authority officers.

* *B.M.J.*, April 17th, 1937; *Lancet*, May 12th, 1937.

(*Continued at foot of col.* 1, *p.* 332.)

ABSTRACTS

[SUMMER FOOD OF THE RED FOX (*VULPES VULPES*) IN GREAT BRITAIN: A PRELIMINARY REPORT. Southern, H. N., and Watson, S. J. (1941.) *J. anim. Ecol.* **10**. 1-11. (3 tables, 12 refs.).]

Apart from its general interest to agriculturists, this paper is of importance in that it provides details of what is probably the first investigation of any magnitude into the natural food of carnivorous animals in this country. Most of the material was obtained either from the Welsh Border or from Midland " plain " country.

Analyses were made of 40 stomach contents (the remaining 11 stomachs examined were empty) and of 18 faecal pellets. Rabbits appeared to be the commonest food, and remains of them were found in well over half of the cases examined. In material obtained from Welsh hill country, remains of sheep were found in 10 out of 26 cases, although some of these records may have represented carrion. Remains of birds (including poultry, pigeons, a crow, grouse and small passerines) and insects were the next in order of frequency, while evidence of small mammals other than rabbits was obtained in the Welsh samples particularly. " Vegetable matter " was present in about 26 per cent. of all samples examined.

A. N. W.

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[CARRIERS OF *HEXAMITA MELEAGRIDIS*. Hinshaw, W. R., and McNeil, E. (1941.) *Amer. J. Vet. Res.* **2**. 453-458.]

The authors found *Hexamita meleagridis*, the cause of infectious catarrhal enteritis, in 16·5 per cent. of live adult turkeys and in 32·4 per cent. of adults examined at autopsy. In sexually immature birds the bursa of Fabricius was found the most convenient source of material and a method of collecting bursal scrapings free from other protozoa is outlined. In live, sexually mature birds the parasite, which measures 9 μ by 3 μ, was obtained from rectal scrapings and in those killed for autopsy from the region of the caecal tonsils. The authors consider that the incidence of infection in adult birds is high enough to account for the transmission of the disease to young birds and that breeding stock is the most important source of infection. A number of other birds were examined for the parasite. These included chickens, pigeons, ducks, guinea hens, pea fowls, and several game and wild birds. All were negative except that *H. columbae*, which is not transmissible to turkeys, was found in 25 per cent. of the pigeons examined, while a species of *Hexamita* transmissible to poults was found in quail and chukars. An alligator lizard and two toads caught in a brooder yard where an acute outbreak was in progress were negative for the parasite. The authors were unable to incriminate flies as carriers, either by experimental or field studies.

The acute type of the disease was produced in poults by oral and rectal injections of saline suspensions of the parasite obtained from an adult carrier and was accomplished by serial transfers in poults until heavy losses occurred in the group receiving the third serial injection. Cross-infection studies indicate that quail, chukars and possibly ducks may act as carriers of *Hexamita meleagridis*. In artificial infections of chickens, the parasite persisted in the bursa of Fabricius and caecal tonsils for at least 22 weeks when the initial inoculation was made in chicks under one week of age. No symptoms of the disease were produced. The authors consider that chickens must also be considered as potential carriers even though the parasite has not been found in flocks under natural conditions.

J. N. O.

The arguments which were raised in support of the centralisation of veterinary services at the time the Agriculture Bill of 1936 was introduced could, we submit, very logically have been expanded to include the meat inspection services and would have presented a fuller and better case for centralised administration,

We publish in this issue the report of a well attended meeting of the Central Division which considered the relationship of our profession to meat inspection and the resolution passed at that meeting calling for the establishment of a centrally controlled veterinary meat inspection service in this country.

REPORT

[SOUTHERN RHODESIA: Report of the Director of Veterinary Research for 1941.]

An increase in routine laboratory duties prevented the small staff available from undertaking any extensive research. As the Director points out, the demand for routine diagnosis and laboratory products might have been expected to decline under war conditions, but on the contrary it has shown considerable increase. This, he states, reflects creditably on the farming community of the colony in that it indicates a general effort to prevent losses amongst livestock, an effort that cannot be wholly accounted for by individual gain arising from the existing increased value of animals.

The principal infectious diseases occurring amongst cattle, as diagnosed at the laboratory, were: anaplasmosis, redwater, theileriasis (other than East Coast fever), trypanosomiasis, Bang's disease, blackquarter, anthrax and helminthiasis. Amongst horses, horsesickness and biliary fever occurred. Pig diseases were not common, but worm infestation and mange were encountered. Helminthiasis is a serious complaint amongst sheep. Blue tongue also occurs in this species. Fowl typhoid and fowl pox are the only poultry diseases recorded, and an interesting account of an outbreak of the former in chicks, transmitted through eggs, as in B.W.D., is reported.

The usual preventive and curative agents, as employed against these various diseases elsewhere, were prepared and issued on a large scale with satisfying results.

W. K.

QUESTIONS IN PARLIAMENT

Scientific Advisory Committee

Mr. Stokes asked the Lord President of the Council whether the Scientific Advisory Committee has been asked to make a report on the organisation of the higher direction of our scientific effort in the war?

Mr. A. Young (Lord of the Treasury): I have been asked to reply. No, Sir; but certain representations to the Government by leading members of the Scientific Advisory Committee and Engineering Advisory Committee are now under consideration.

Mr. Stokes: Will my hon. Friend ask his right hon. Friend to study the speech made by the hon. Member for Cambridge University (Professor Hill) in this House on July 14th, and the interruptions by the Minister of Production on that occasion, when it was stated that a report had been made, which was untrue?

Mr. Young: I will bring that question to the attention of the right hon. Gentleman.

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Cattle Diseases

Sir J. Lucas asked the Minister of Agriculture whether he is aware that certain agricultural papers give advice suggesting the sale in the local markets of cows suffering from tuberculosis and other infectious or contagious diseases; and whether, in the interests of the health of our population and of the purity of our herds, he will consider the policy of slaughter with compensation as in the case of foot-and-mouth disease?

Mr. Hudson: The reply to the first part of the Question is in the negative. With regard to the latter part, the suggestion made by my hon. and gallant Friend is impracticable

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Racehorses (Feeding-stuffs)

Mr. Vernon Bartlett asked the Minister of Agriculture whether, in view of the further drastic reductions in the supply of feeding-stuffs to poultry, he will further curtail the supply of feeding-stuffs to racehorses?

The Minister of Agriculture (Mr. R. S. Hudson): The supply of feeding-stuffs for racehorses is limited by the number of horses in training for the permitted programme of racing. This season's programme is already very much restricted and it is not proposed to reduce it further.

Mr. Bartlett: Is the right hon. Gentleman aware that a great number of people, farmers and poultry keepers, are very seriously disturbed by this arrangement?

Mr. Hudson: The amount of feeding-stuffs consumed by racehorses is, as I have repeatedly stated, quite negligible. If it were distributed among poultry keepers, it would allow one month's balancer ration for one hen for one person out of every 300.

ROYAL COLLEGE OF VETERINARY SURGEONS

LIST OF SUCCESSFUL CANDIDATES

Membership Examination (July, 1942)

(*Continued from page* 305.)

Dublin

FIRST YEAR:

Casserley, P. (B)
Coard, E. F.
Cremin, C. J.
*Daly, P. J.
Finn, J. J. (B)
Hirsch, E.
Hughes, F. J.
Hutchinson, R. W.
Lynch, Richard
McCarthy, J. K.
McCaughey, R. M.
McDermot, M. J. (C)
Maher, K. J.
Maybin, Richard
*Moffitt, T. F.
Murphy, P. A. (B)
*Murphy, T. (Palatine)
Murphy, T. (Dublin) (B)
O'Neill, J. B.
O'Riordan, J.
O'Sullivan, Edward
Quinn, P. G.
Thornton, E.
Twomey, M.
Wolohan, J. J.

* Denotes 2nd class honours.
(C) Denotes credit in Chemistry.
(B) Denotes credit in Biology.

SECOND YEAR:

*Burke, W. L.
Bryson, Hugh (H)
Clyde, D. H.
*Corcoran, C. J.
Cronin, M. T. I. (P)
Crooks, David (P)
De Lacy, T.
Donnelly, J. G.
Dromey, Wm.
†Farrelly, B. T.
Greenwood, J. J. (P)
*Hamilton, A. H. A.
Harbison, J. T. (P)
Hatton, R. D.
Higgins, P. K. (P)
Hill, H. J.
*Jordan, H.
Loughlin, E.
Lunney, W. J. (H)
Lynch, Vincent (H)
Lyttle, C. N.
*McCrea, G. H.
McGuinness, T. P. H.
Molloy, P. F.
Moore, G.
Murphy, M. A. (P)
Nolan, F.
O'Donnell, B. L. (H)
O'Mahony, C. P.
O'Shaughnessy, T. N.
Richardson, J. P. (P)
Sherriff, R. B.
Simpson, T. T. (P)
Walsh, R. A.

† Denotes 1st class honours.
* Denotes 2nd class honours.
(P) Denotes credit in Physiology.
(H) Denotes credit in Histology.

THIRD YEAR:

Barron, J. M.
Boyd, N. C.
Burke, E. S.
Casey, P. M.
Clarke, A. R. L.
Corridon, M.
Craig, S. A.
*Dancey, G. F.
*Earnshaw, R. E.
Finlay, J. T. (H)
Fitzpatrick, D. (H)
Gilmore, R. A.
Gleeson, E.
Hobson, J.
Jolley, C. T.
Kavanagh, J. F.
Kelly, B. O.
*Kelly, D. L.
King-Hall, R. (A)
Lawther, J. R.
Lyness, T.
McCann, P. G.
McCarroll, P. J. (H)
McGrenra, D. P.
Mullin, W. J. (H)
O'Farrell, J. D.
Power, P. N.
Wall, B.
Wolfe, F. E.

* Denotes 2nd class honours.
(A) Denotes credit in Anatomy.
(H) Denotes credit in Hygiene.

FOURTH YEAR:

Aitken, John
Burns, N. M.
Carmichael, R.
Counihan, E. J.
Eivers, B. W. (Paras)
Foley, James
Freeman, W. J.
Halpin, F. B.
Hodgins, R. D.
Huey, John
Kelly, W. R. (Paras)
Larkin, P.
*Lee, R. P.
McGarry, J. J.
O'Neill, W. D.
Parker, I. V. G.
Rice, D. P.
Scannell, P.
Shinnors, G. A.
Smyth, P. J.
Steele, T. H. J.
Wallace, J. G.

* Denotes 2nd class honours.
(Paras) Denotes credit in Parasitology.

FINAL YEAR:

Burgess, David
Duignan, T. J.
Farrell, H. F.
Gwynn, Miss O. R.
Johnston, J.
McEarlean, B. A.
Magee, B. L.
Morgan, F. J.
Mullan, J. F.
Orr, F. H.
Parkhill, J. S.
Scally, W. C. P.
Sheehy, P. J.
Stewart, J. E.

(*Concluded*)

NOTES AND NEWS

The Editor will be glad to receive items of professional interest for inclusion in these columns.

Diary of Events

Aug. 19th.—Summer Meeting of the Eastern Counties Division, N.V.M.A., at Cambridge, 2.15 p.m.

Sept. 20th.—Entries for Miss Aleen Cust Veterinary Research Scholarship (R.C.V.S.).

Oct. 13th.—R.C.V.S. Council and Committee Meetings, Royal Station Hotel, York.

Oct. 14th.—R.C.V.S. Council and Committee Meetings, Royal Station Hotel, York.

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Forthcoming N.V.M.A. Conference

Our readers will be glad to know that there will be a two-day conference, in connection with the Annual Meeting of the Association, in London. The days selected for the conference will be within the period September 24th—September 29th. Full details will be announced later.

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REFRESHER TUITION IN BOVINE PREGNANCY DIAGNOSIS AND TREATMENT FOR INFERTILITY

Arrangements are now being made for refresher tuition to be undertaken in the County of Sussex. Mr. Steele-Bodger, of Tamworth, Staffs, will shortly be visiting practitioners in that area who have given notification of their wish to receive this instruction and if there are any others who would still like to send their names in they should do so as early as possible—to the General Secretary, 36, Gordon Square, London, W.C.1.

* * * * *

PERSONAL

Birth.—MURCHISON.—On July 20th, 1942, to Elizabeth (*née* Tait), wife of M. M. Murchison, M.R.C.V.S., Oxted, Surrey, a daughter.

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Colonial Office Appointments.—Announcement is made of the promotion of Mr. Howard Read Binns, M.A. (CANTAB.), M.R.C.V.S., Veterinary Research Officer, Palestine, to be Senior Veterinary Research Officer, and of the appointment of Mr. Douglas Esdaile Macgregor, B.SC., M.R.C.V.S., as Veterinary Officer, Nigeria.

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R.C.V.S. OBITUARY

BRAY, Malcolm, The Manor Cottage, King's Lynn, Norfolk. Graduated Edinburgh, December 22nd, 1896. Died August, 1942.

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HOME OFFICE INSPECTORATE

Announcement is made by the Home Office that Major J. Gilmour, C.M.G., M.C., M.B., CH.B., F.R.C.S. (EDIN.), has been appointed an Inspector under the Cruelty to Animals Act, 1876.

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ROYAL ARMY VETERINARY CORPS

The following announcement is made in the issue of *The London Gazette* dated August 4th, 1942: 2nd Lt. A. W. Peyton (201786) from R.A., to be Lt., August 5th, 1942.

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SCIENCE AND WARFARE

A motion which suggests that there should be set up a new central body to co-ordinate scientific and technical research and development for war purposes has been tabled in the House of Commons

by Captain L. F. Plugge and 19 other members of all parties. The motion reads:—

That this House is of the opinion that present circumstances require the early establishment of a whole-time Central Scientific and Technical Board to co-ordinate research and development in relation to the war effort and to ensure that the experience, knowledge and creative genius of British technicians and scientists exert a more effective influence over the conduct of a highly mechanised war.

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MINISTRY OF AGRICULTURE NEWS SERVICE

Council of Agriculture Recommend "Panel" Scheme

The Council of Agriculture for England have recommended to all farmers and agricultural education authorities throughout the country the adoption of the panel scheme for the control of diseases of dairy cattle. This was initiated by the National Farmers' Union of England and Wales, the National Veterinary Medical Association and the Ministry of Agriculture and Fisheries. More than 30,000 cattle are already (July, 1942) "on the panel" under this scheme which aims at the control of mastitis, abortion, sterility and Johne's disease. Regular visits to farms by veterinary surgeons (at nominal fees) is its principal feature.

Control Scheme Demonstrated.—The group of cattle diseases comprising mastitis, contagious abortion, sterility and Johne's disease cause a yearly loss to the nation of at least 50,000,000 gallons of milk. The scheme for the control of certain diseases of dairy cattle, which was launched in June after discussions between the National Farmers' Union, the National Veterinary Medical Association and the Ministry of Agriculture and Fisheries, deals with these four diseases. A practical demonstration of some of the methods used in preventing abortion and treating sterility and mastitis was given recently at the Northampton Agricultural Institute. Judging from the exceptionally large gathering and the interest shown in the proceedings it appeared that farmers are keenly interested in the new system which enables them, for fixed veterinary fees, to take advantage of these up-to-date methods of controlling disease in their herds.

Remarkable Results from Veterinary Supervision on a "Panel" System.—The value of the National Veterinary Scheme to milk producers has been demonstrated in a remarkable way by a number of farmers. It is nothing new for them to put their herds under the constant care of a veterinary surgeon, for they have been "on the panel" with a county practitioner for periods up to ten years. Although the new scheme has been operating for only a few weeks, many milk producers have already entered into an undertaking with this practitioner for the control of mastitis, sterility, contagious abortion and Johne's disease at fixed fees and by approved methods. The undertaking was a formality for many of them, as their herds were already subject to a private system of control almost identical with that now officially sponsored. Each of these pioneers speaks enthusiastically of the big drop in cow wastage and the considerable cash value resulting from regular supervision by a veterinary surgeon. Herds, in some cases, have been saved from absolute extinction.

In one such case the farmer was suffering such heavy losses through sterility and abortion that he was on the point of giving up farming altogether. Two years ago he placed his flying herd unreservedly in the hands of a veterinary surgeon. To-day he has a self-contained herd of 15 Guernsey cows with his own stock bull and seven followers. The farmer is so impressed with this progress on the health side that he is having the farm buildings remodelled. An accredited licence has been applied for, as a first step to a tuberculin-tested herd. All the developments have accrued from increased revenue over the last two years.

Some years ago there was abortion right through a dairy herd in this district. By giving the veterinary surgeon complete supervision, the disease was got under control, sterility was reduced; and better housing and feeding led to the establishment of an attested herd. "It didn't cost anything to start with," said the farmer a day or two ago. "We covered the expense by the extra milk sold as abortion was being got rid of." The capacity of the herd is indicated by the milk yields in the last two winters. Twenty-three cows gave 43 gallons a day in December, 1940, and 48 gallons in December, 1941.

A large attested herd has been saved after some years of "nothing but trouble," as the farmer puts it. He went on to the same private "panel" as others, saw mastitis and abortion brought under control, had all his calvings regulated and can now plan with certainty for winter production. Milk yields have increased enormously since veterinary supervision became a normal part of the farm routine. On another farm a tuberculin-tested, pedigree herd has been the reward of regular supervision. Sterility was causing an annual loss from eight to ten cows a year out of a total of 50 milking Shorthorns. Five years ago the farmer placed his herd unreservedly in the hands of his veterinary surgeon, and disease—and its losses—was brought under control. The tuberculin-tested bonus was achieved and a fine pedigree herd of Friesians well established.

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National Milk Testing Scheme

Poor Keeping Quality May Mean Lower Price.—When the Government's policy of reduction in the producer's price for supplies of milk of poor keeping quality and the rejection of sour milk that cannot be salvaged for the manufacture of dairy produce becomes operative it is intended that guaranteed prices on a reasonable standard of production will be introduced. A scheme for improving the keeping quality of all milk supplies is to operate forthwith. All milk is now liable to be sampled by a simple standard method under the administration of the Ministry of Agriculture. Facilities for technical advice to producers and distributors will also be available, and an advisory committee to supervise the scheme has been appointed by Mr. Hudson in consultation with the Minister of Food and the Minister of Health. In addition to officials of the Departments concerned the committee will include representatives of the Milk Marketing Board, the National Farmers' Union and the Central Milk Distributive Committee.

The keeping quality of milk depends to a large extent on the cooling facilities at the farm. The small producer without a cooler and with a limited water supply is, of course, handicapped, but he can adapt his facilities to good purpose. Standing churns in a tank of water (running water if possible) immediately after milking will bring down the temperature of the milk and in hot, dry weather the producer can take the added precaution of covering the tops of the churns with damp cloths. Should the milk have to remain on the farm for several hours it can be kept at a low temperature by placing the churns in a tank or trough of cold water on the north side of a building, or in a room facing north. Poor cooling will often result in early souring and this means waste. Where one churn of milk on the point of souring is bulked with other supplies it will affect many times its own volume and the waste will be considerable. The nation can no longer afford such waste.

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HEAD OF THE CIVIL SERVICE

The Lord Chancellor's Explanation

The Lord Chancellor has given a written reply to a question put in the House of Lords by Lord Perth, who asked: "When and by what instrument the title of 'Head of the Civil Service' was first bestowed on the Permanent Secretary to the Treasury; whether Parliamentary sanction was or has subsequently been obtained to the bestowal of the title, and what are the powers conferred on and the functions performed by the holder of the title."

Lord Simon said that the supreme head of all the services of the Crown was the Sovereign. The Ministerial head of the Civil Service was the Prime Minister and First Lord of the Treasury. The principal officer of that service was the Permanent Secretary to the Treasury, a title introduced in 1867, and the post had since carried with it the official headship of the service. No formal instrument recording the fact appeared then to have been issued, but the position was explicitly reaffirmed in 1919 by the Government of the day in connection with the reorganisation of the Treasury after the last war. Appointment as "Permanent Secretary to the Treasury and official head of H.M. Civil Service" was made by the Prime Minister with the approval of his Majesty. The sanction of Parliament to appointments and titles in the Crown Services was not required. The function of the holder of this post was to direct, subject to Ministerial authority, the work of the Treasury, including that part of the Treasury's work which was concerned with the general supervision of the Civil Service and the central oversight of the official machinery of Government. His duties in this regard included that of advising the Prime Minister and the First Lord, after consultation with any other Minister concerned, on appointments to certain senior posts in the service which required the Prime Minister's approval—namely, permanent heads of Departments, their deputies, principal finance officers, and principal establishment officers. The holder of this post was, of course, in the exercise of his functions, subject to the authority of the Government of the day and he had no powers independent of the Minister to whom he tendered advice and to whom he was responsible.

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ZOOLOGICAL SOCIETY OF LONDON

The report of the Zoological Society of London for 1941, to be presented at the annual meeting of the Society on August 19th,

states that both Regent's Park and Whipsnade suffered several times from air raids during 1940 and 1941. There were eleven incidents in all, eight in London and three at Whipsnade. Fifty-five high explosive bombs, 200 incendiaries and two oil bombs fell in the Society's grounds. Although considerable material damage was done, there were no serious casualties among the staff or visitors, and very few among the animals.

The number of visitors to Regent's Park in 1941 was 512,966, a decrease of approximately 119,000 compared with 1940, and the lowest figure since 1864. In spite of decreased travelling facilities the number of visitors toWhipsnade in 1941 was 246,139, an increase of approximately 43,000 compared with the previous year.

The policy of the council is to keep Regent's Park and Whipsnade open and to preserve the bulk of the collections. Apart from the national service rendered by keeping places of healthy recreation available to fellows, war-workers, members of H.M. Forces, and the general public, the council considers that this is in the best interests of the Society in preparing for the speediest possible resumption of full activity after the war.

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SCHEME FOR THE CONTROL OF DISEASES OF DAIRY CATTLE

STATEMENT SHOWING THE NUMBER OF UNDERTAKINGS NOTIFIED TO THE MINISTRY OF AGRICULTURE DURING THE WEEK ENDED AUGUST 8TH, 1942.

County	Undertakings Notified		Total Undertakings		
	During Week	Previously	No.	No. of Cattle	
				Cows	Heifers
ENGLAND					
Bedford	1	14	15	419	237
Berks	3	22	25	815	538
Bucks	2	18	20	586	443
Cambridge ..	2	4	6	170	74
Chester	16	124	140	4,397	1,616
Cornwall	—	—	—	—	—
Cumberland ..	—	13	13	451	380
Derby	4	34	38	1,435	641
Devon	5	48	53	879	599
Dorset	4	7	11	365	209
Durham	1	92	93	2,041	567
Essex	4	71	75	3,255	2,015
Gloucester	2	26	28	942	544
Hampshire	6	93	99	3,417	2,177
Hereford	—	9	9	205	76
Hertford	1	29	30	954	643
Hunts	—	1	1	13	8
Isle of Ely	—	—	—	—	—
Isle of Wight ..	1	3	4	55	15
Kent	3	35	38	870	495
Lancs	11	60	71	2,104	734
Leics	—	17	17	477	350
Lincs (Holland) ..	—	2	2	26	—
„ (Kesteven) ..	1	4	5	52	37
„ (Lindsey) ..	4	5	9	217	60
Middlesex	—	1	1	30	—
Norfolk	7	63	70	2,284	1,421
Northants	3	21	24	729	583
Northumberland ..	—	21	21	604	245
Notts	4	17	21	615	230
Oxford	—	13	13	351	424
Rutland	—	6	6	110	68
Salop	6	82	88	3,032	1,558
Soke of Peterborough	—	—	—	—	—
Somerset	11	34	45	1,328	519
Staffs	9	58	67	1,990	880
Suffolk, E.	4	16	20	587	398
„ W. ..	2	12	14	265	176
Surrey	—	40	40	1,209	462
Sussex, E.	6	57	63	1,560	770
„ W. ..	2	39	41	1,172	864
Warwick	4	36	40	1,041	707
Westmorland ..	2	3	5	103	164
Wilts	—	30	30	1,344	584
Worcester	8	63	71	1,499	754
Yorkshire, E.R. ..	3	6	9	118	100
„ N.R. ..	9	32	41	854	474
„ W.R. ..	8*	59	67	2,009	596
WALES					
Anglesey	1	6	7	146	45
Brecon	—	2	2	25	9
Carmarvon	3	43	46	9 7	486
Cardigan	—	11	11	166	117
Carmarthen	12	99	111	1,937	1,084
Denbigh	—	23	23	568	250
Flint	3	39	42	976	5 3
Glamorgan	2	30	32	474	295
Merioneth	—	2	2	23	23
Monmouth	1	13	14	411	218
Montgomery	—	1	1	83	82
Pembroke	6	29	35	738	487
Radnor	—	—	—	—	—
TOTALS ..	187	1,738	1,925	53,433	27,942

Note.—Of the total of 1,925 undertakings notified to date 574 are for 1 year, 103 are for 2 years, and 1,248 are for 3 years.

It is a dismal sight to go on to some of the farms that formerly carried big pig stocks. Standing empty are the fine sheds that were built at much cost and great ingenuity. Existing pig herds continue to dwindle where there is no access to swill. It is no wonder that the Ministry of Food is pushing ahead with its plan to curtail very greatly the number of bacon factories that are to be allowed to function.—*Farmer and Stock-breeder.*

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The war has given an impetus to the horse trade in the Bradford district of the West Riding of Yorkshire which nothing else would have done. This was strikingly indicated at the parade and show of horses held at Low Moor, South Bradford, when the record number of 40 animals was paraded before the judges. Some idea of the revival in horse breeding can be gathered from the fact that only 18 horses were entered last year.

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Mr. James Hendrick, Professor of Agriculture at Aberdeen University for 30 years and Principal and Director of Studies at the North of Scotland College of Agriculture, is to retire at the end of September.

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The University of Marburg, with the support of the Behring Works, has founded an Emil von Behring prize consisting of a medal and a sum of five thousand gold marks. It will be awarded every two years for scientific work in medicine, veterinary medicine or natural science, with special reference to immunity and control of epidemics.—*Nature.*

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It was stated in the Eire Senate recently that the decline in pig production was one of the most serious things that had happened since the emergency began. Compared with 4,000 killings per week in 1935, they fell to 2,000 in 1939, and recently the figure fell to 300 per week, and some of the Cork factories were about to close down.

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Sir Guy Marshall, who has been Director of the Imperial Institute of Entomology since its foundation in 1911, retired on Friday of last week. Dr. S. A. Neave has succeeded him.

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The Committee of the Privy Council for the Organisation and Development of Agricultural Research has appointed Professor James Gray and Professor F. L. Engledow as members of the Agricultural Research Council in succession to Sir Merrik Burrell and Professor D. M. S. Watson, whose terms of office as members of the council have expired.

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The commercial offices of Imperial Chemical (Pharmaceuticals), Ltd., are now situated at 89, Oxford Street, Manchester, 1.

CORRESPONDENCE

Letters to the Editor should reach the Office not later than by the first post on Monday morning for insertion in following Saturday's issue.

The views expressed in letters addressed to the Editor represent the personal view of the writer only and must not be taken as expressing the opinion or having received the approval of the N.V.M.A.

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PYOMETRA OR PREGNANCY: DIFFERENTIAL DIAGNOSIS

Sir,—I read the article on the diagnosis and treatment of pyometra in cattle by Messrs. Rowson and Spriggs with considerable interest in view of the fact that the line of treatment recommended—intramuscular injection with stilboestrol diproprionate combined with Lugol's irrigation—is that first of all suggested by G. Brownlee and R. F. Montgomerie, of the Wellcome Foundation, in December, 1940, and later reported on by me in a paper to the "Central" on June 5th, 1941, and in a contribution to the Royal Society of Medicine on April 4th, 1942. It is also the treatment recommended in the article written jointly by myself, S. L. Hignett and H. W. Steele-Bodger published in February, 1942, which has been criticised by Mesrs. Rowson and Spriggs from the point of view of the short note made on *differential diagnosis* from pregnancy: two sentences being removed from their context and utilised to establish their point.

After very careful reading of the paper I have come to the conclusion that their points of differential diagnosis are likely to prove of very doubtful practical value. While a dilated cervix may exist

in the larger proportion of cases of pyometra *a closed cervix*, with an apparent seal, is quite frequently encountered. A dilated cervix—or at least a cervix which will admit the finger even to its full length (which, by the way, is not the length of the cervix (normally 3½-4 in.))—is a by no means uncommon condition *in pregnancy*, particularly in older cows which have conceived in spite of the presence of one or more protruding annular bands of the cervix as a sequel to cervicitis. I would emphasise that although a seal may not be detectable it would be rash to presume that no seal was present further forward than the finger could feel.

Similarly a history of intermittent discharge is not infrequently met with in pregnant cows—particularly in those which have oestral periods during pregnancy or in herds infected with trichomonas foetus, *although gestation may and often does continue to full term.*

In regard to the case described in which "fremitus" was met with in a case diagnosed as unilateral pyometra from which the conclusion is drawn that its presence is of little or no value in differential diagnosis, I hesitate to accept such a conclusion following observation of this in a single recorded case. In the area in which the cases described were encountered unilateral pyometra appears to be very common. In my experience the condition is very rare.

The method of differential diagnosis—"pinching up a fold of the uterus and allowing it to slip slowly through the finger and thumb when the foetal membrane will be felt slipping away before the uterine wall is released"—appears to me and actually has, since reading this article, been a much more difficult procedure than one would imagine from the way it is put forward, and one not without risk of rectal perforation. A very sensitive touch indeed must be needed—similar to that required to feel a normal fallopian tube per rectum—and I cannot claim to have been successful in two heifers three months pregnant which, if this be the deciding factor in differential diagnosis, might have been designated cases of pyometra.

It is stated that cases of trichomonas pyometra have been met with which are almost indistinguishable from pregnancy by rectal palpation. This does not agree with my experience, although I admit that when I first met trichomonas infection in 1935 before any records of it had been made in this country, I did confuse it with pregnancy initially, despite the fact that I noted in each case a marked tenseness and enlargement of the uterine body which is, in my experience, *very characteristic*, and after one has once met it and felt it, almost diagnostic. It should be noted that particularly in early cases of trichomonas pyometra, say up to five months cyesis, the main enlargement is *in the body* of the uterus; the horns are enlarged but not elongated proportionately. This has been confirmed by *post-mortem* examinations. Furthermore, in a considerable proportion of early cases which are designated trichomonas pyometra the uterine contents in no way resemble pus.

I was most interested in case No. 4, a maiden pedigree Friesian heifer in a trichomonas infected herd. It is not stated in the records whether this was unilateral or bilateral pyometra, but the anterior end of the cervix was found "sealed off from the body of the uterus by a membrane which was forcibly broken down." It is not stated whether this animal had been served or whether it had aborted. The presence of the membrane is a very interesting point: are we to conclude it was congenital, and if so has such a condition ever been recorded previously? and what was the origin of the pyometra? The subsequent lactation of two gallons reached by the heifer which is inferred to be due to the stilboestrol injections is also very interesting, but contrary to my own observations using large doses of this product. *In my experience of trichomonas infection there is no physiological development of the udder*, whatever the stage of cyesis, and I believe this is generally agreed.

The authors state that the presence of a bilateral enlargement of the uterus with a corpus luteum in one ovary only can be considered as almost diagnostic. I have, not infrequently, examined cows and heifers with a thin-walled uterus containing fluid not under pressure—such as is typical of normal pregnancy—in which bilateral enlargement existed with only one corpus luteum present. I have seen such cases *post-mortem* up to a four-months pregnancy in which there was little difference in the size of the uterine horns, but only one foetus was present. Such a *post-mortem* specimen was demonstrated by me at the Southern Counties meetings at Salisbury in 1941, when the Survey Scheme was discussed.

In my experience the palpation of a pyometra uterus *does* convey an entirely different impression from that of pregnancy, and that impression can best be described as increase in tension, thickening and less degree of fluctuation of the uterine wall. Unilateral pyometra—again in my experience—is an exceptional condition and requires great care in differential diagnosis.

In any case of pyometra, particularly where no reliable history is available, the obvious course where the slightest doubt exists in one's mind following vaginal and rectal examination, is to make a further examination after an interval of 21 days and note the presence or absence of changes which will have occurred if normal pregnancy exists.

Yours faithfully,

12, Landguard Road, G. N. Gould.
Southampton.
August 4th, 1942.

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RE THE INCIDENCE OF CANCER IN DOGS

Sir,—I have recently had an interesting conversation with the President—incidentally a great philanthropist—of a Cancer Research Institute for humans. This institute has carried out some convincing experiments in a special diet for the alleviation and possibly prevention of cancerous growths in human beings. I should be very pleased if all canine practitioners could send me their views on the following questions.

Has the incidence of cancer, particularly carcinoma, increased in dogs since the war? If so, can any cause be found or suggested for this increase?

Has it been observed that secondary growths, following surgical removal, have occurred in a shorter time than in pre-war conditions?

What is the incidence of cancer in hounds? When I ask this question I am bearing in mind that frequently hounds do not live to, or perhaps beyond, the cancer age.

At what age, on the average, do you think cancer appears in the dog?

There is no doubt that war evacuation has changed the dog population, some towns increasing, others decreasing in numbers of dogs, and I think in my case there are more dogs here than in pre-war times. I am quite sure that the number of cancer cases in dogs has increased in my practice, and on surgical removal I have been astounded at the rate of growth of the secondary tumours.

I have attended two packs of hounds for many years and I cannot remember a case of cancer. Quite a number of these hounds lived to six or seven years. Their diet in pre-war days consisted of oatmeal, cooked diseased meat, from which all fat had been removed, with occasional raw meat; if the animal were healthy and killed and dressed at the kennels, again all fat was removed.

I understand that lean meat and oatmeal are two of the foods allowed in the experiment now being conducted at the Cancer Institute referred to.

As this matter may be of far-reaching importance in elucidating one of the mysteries of cancer, it is hoped that all canine practitioners will respond to these few questions, and possibly add any original thoughts that have occurred to them.

Yours faithfully,

Hillside, K. A. Miles.
Leicester Road,
Market Harborough.
August 2nd, 1942.

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A TUBERCULOSIS POLICY

Sir,—Any scientific attempt to control our side of the tuberculosis question in animals would seem to present even more difficulties than confront the medical profession. The most valuable statement in the article from *The Lancet* (*Vet. Rec.* **54**. 286) which also applies to us is: "There is proof that by raising the standard of environment in the presence of infection, or, alternatively, removing sources of massive infection from bad environment, we have the surest method of limiting the spread of infection and, therefore, of reducing morbidity. . . . *The time has come to take much more active steps in the preventive field.*"

Because of the ubiquitous occurrence of tuberculosis in almost all the animals under our care and consideration the task of control for us is immensely difficult and eradication impossible. Even the eradication of bovine tuberculosis in Denmark with island isolations has not been wholly successful. We can hardly summon radiology to our aid in detecting early cases of tuberculosis, and I would ask, is the publication of the number of tuberculosis-free herds in this country, as indicated by the tuberculin test as at present carried out, *reliable*, considering the current controversy on the tuberculin that has up to the present been used? I do not like the presentation of the number of tuberculosis-free herds as if it was "gospel truth."

To control tuberculosis to the best of our ability we want to call to our aid all the forces available: good hygiene and environment, good clinicians, a host of intelligent farm attendants, expert laboratory and field research men, and full powers to employ all these men in prevention, control and elimination, and then perhaps we should notice some effect of a visible nature on the prevention of tuberculosis in some of our animals and especially bovines.

Yours sincerely,

Bolton. G. Mayall.